

CLAIMS

1 1. A mechanism for delivering power to an on-die component, said mechanism
2 comprising:
3 a package unit having a low frequency delivery path and a high frequency delivery
4 path; and
5 a die having said on-die component and a capacitive device each coupled in parallel
6 between a first node and a second node, said die further including a low frequency reception
7 path and a high frequency reception path, said low frequency reception path to couple to said
8 low frequency delivery path on said package unit and to said first node, and said high
9 frequency reception path to couple to said high frequency delivery path on said package unit
10 and to said first node.

1 2. The mechanism of claim 1, wherein said on-die component comprises a buffer
2 circuit.

3 3. The mechanism of claim 1, wherein said high frequency delivery path on said
package unit includes a capacitive element.

1 4. The mechanism of claim 3, wherein said high frequency delivery path on said
2 package unit further includes a resistive element.

1 5. The mechanism of claim 4, wherein said resistive element comprises a damping

2 resistor.

1 6. The mechanism of claim 1, wherein said high frequency reception path on said die
2 includes a resistive element coupled to said first node.

1 7. The mechanism of claim 1, wherein said resistive element comprises a damping
2 resistor.

1 8. The mechanism of claim 1, wherein said board comprises a power supply device.

1 9. The mechanism of claim 1, wherein said die comprises an integrated circuit.

1 10. A power delivery system comprising:

2 a circuit board including a power supply device to provide a voltage signal;

3 a package to couple to said board so as to receive said voltage signal and having a first
4 delivery path to provide a first output voltage signal and a second delivery path to provide a
5 second output voltage signal; and

6 a die to couple to said package so as to receive said first output voltage signal at a first
7 node and to receive said second output voltage signal at a second node, said die having a
8 capacitive element and a component coupled in parallel between said first node and a third
9 node so as to receive voltage signals from said package, wherein said power delivery system
10 includes a resistive element provided between said second node and said first node.

1 11. The system of claim 10, wherein said component comprises a buffer circuit.

1 12. The system of claim 10, wherein said second delivery path on said package unit
2 includes a capacitive element.

1 13. The system of claim 10, wherein said die comprises an integrated circuit.

1 14. A power delivery system comprising:

2 a package having a first node, a second node, a third node, a fourth node and a fifth
3 node, said package having a first delivery path between said first node and said third node,
4 said package further having a second delivery path between said second node and said fourth
5 node; and

6 a die having a sixth node, a seventh node and an eighth node, said sixth node to
7 couple to said third node of said package, said seventh node to couple to said fourth node of
8 said package, said eighth node to couple to said fifth node of said package, said die including
9 a component provided between said seventh node and said eighth node and a capacitive
10 element provided between said sixth node and said eighth node, wherein said power delivery

11 system further includes a resistive element coupled between said second node and said sixth
12 node.

1 15. The system of claim 14, wherein said component comprises a buffer circuit.

1 16. The system of claim 14, wherein said second delivery path on said package unit
2 includes a capacitive element.

1 17. The system of claim 16, wherein said resistive element is provided on said second
2 delivery path between said second node and said fourth node.

1 18. The system of claim 17, wherein said resistive element comprises a damping
2 resistor.

1 19. The system of claim 14, wherein said resistive element is provided on said die unit
2 between said seventh node and said sixth node.

1 20. The system of claim 14, wherein said die comprises an integrated circuit.

1 21. A power delivery system comprising:
2 a power supply;
3 a first unit to couple to said power supply at a first input node and a second input

4 node, said first unit including means for providing a low frequency signal at a first output
5 node and means for providing a high frequency signal at a second output node; and
6 a second unit including a first input node to couple to said first output node of said
7 first unit and a second input node to couple to said second output node of said first unit, said
8 second unit including a component and a decoupling capacitor coupled in parallel.

1 22. The system of claim 21, wherein said component comprises a buffer circuit.

1 23. The system of claim 21, wherein said means for providing a high frequency signal
2 comprises a capacitive element.

1 24. The system of claim 21, wherein second unit includes a resistive element coupled
2 between said first input node and said second input node of said second unit.

1 25. The system of claim 24, wherein said resistive element comprises a damping
2 resistor.

1 26. The system of claim 21, wherein said second unit comprises an integrated circuit.